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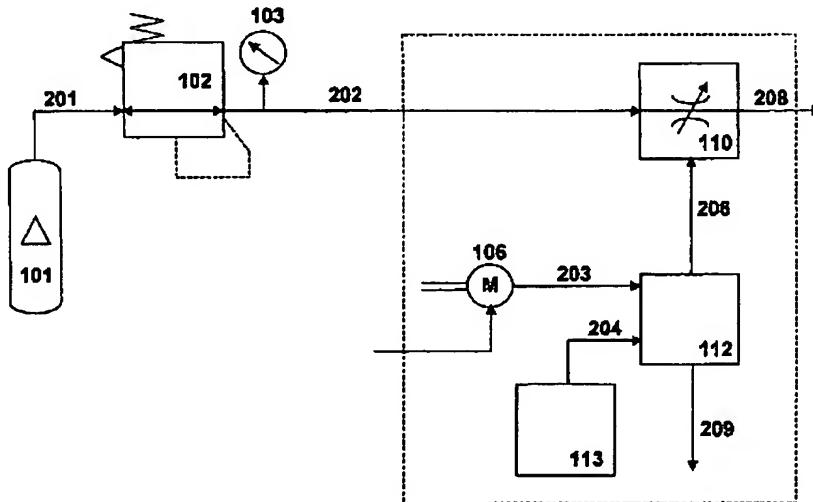
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(54) Title: -WELDING MACHINE

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(57) Abstract: The inventive system and method allows the control of shielding gas in an electric welding apparatus having automatic wire feed by controlling the flow rate of the shielding gas as a function of the wire feeding speed and/or the welding current obtained. A control circuit (112) receives an input signal (203) that is representative for the wire feeding speed and/or the welding current, and issues, in response to the input signal (203), a control signal (206) to a controllable flow control valve (110) in a gas supply line (201, 202, 208), which passes shielding gas from a tank (101), via a regulator valve (102), to a discharge nozzle of the welding apparatus welding gun. An adjusting unit (113) provides an operator with an interface which permits adjustments of the parameters that determine the flow rate function.